SWRI SURFACE WATER RESOURCES, INC.

# MEMORANDUM

**To:** Tom Clark

**From:** Dave Schuster

**Date:** September 19, 1996

**Subject:** CALFED (BDAC) Agricultural Water Use Efficiency.

Agriculture's response to CALFED staff's effort to develop an agricultural water use efficiency component of the Delta solution was discussed at the CUWA/AG Policy Committee's September 9, 1996 meeting.

The urban representatives stated that, in their opinion, the agricultural water use efficiency process was going no where fast. They said that the environmentalist were pushing hard for mandatory water use efficiency programs for both urban and agricultural water users and that they (CUWA) were exploring a mandatory urban program with the environmentalist. They complained that the agriculture water users were not willing to explore a mandatory program and some agriculture water users may not even be willing to participate in the proposed AB 3616 program. They argued the agricultural water users were putting the urban sector in a tough spot. They would look like fools if they agree to a mandatory urban water use program and the agriculture water users were not required to do the same. They may be setting up agriculture if they agree to a mandatory urban water use program which others such as the state legislature might try to impose similar mandatory requirements on agriculture.

Lester Snow participated in the above discussion. His message seemed to be that the agricultural water use efficiency process was not making progress. He did not think progress could be made with the current agriculture representatives and those representatives need to be replaced if a successful outcome of the CALFED Agricultural Water Use Efficiency process was to be attained. The only representative he mentioned by name was Bill DuBois. He went on to say that agriculture needed to be for something and not simply to continue to oppose everything being proposed. The way he made this last point seemed to be a plea for us to bring an Agricultural Water Use Efficiency Program to CALFED.

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The CUWA comments did not have much affect, at least on me. The environmentalist and CALFED staff seem to believe that they need assurances that agriculture and urban water users will use water made available through the Delta solution efficiently. A draft CALFED document entitled "Agricultural Water Use Efficiency Strategy" contains the following:

- **Provide adequate assurances that agriculture water supplies will be used efficiently** - A central tenet of the CALFED process is that all interests will move forward together. As we plan for possible improvements in water conveyance and storage, it will be important for stakeholders and taxpayers to be assured that existing water supplies are being used efficiently. The approach we take must provide the information and include the tools to offer this assurance.

My reaction to this language is why do they need that assurance? The amount of agricultural or urban conservation will not effect the selection of the final Delta solution, the evaluation of any alternative, or the comparison of the alternatives. Water conservation targets are only important if the success of a total solution to all of California's water supply problems is being evaluated. Water conservation quantities are irrelevant to a partial solution which the Delta solution is or should be. The fact that the environmentalists and CALFED staff still fail to understand this fact is not agriculture's fault and agriculture should not respond by offering a conservation program that is designed to solve a problem that doesn't exist.

The fact that CUWA seems to be falling into this trap is not surprising and should not be emulated by agriculture. However, Snow's comments did get my attention. Are our people not being responsive or persuasive? Is there a problem agriculture should address?

Soon after the September 9, 1996 CUWA/Ag meeting I read a Michael Heaton memorandum (copy attached) on this same issue. Heaton is working for CALFED and is supposed to represent agriculture in internal CALFED water use efficiency discussions. Heaton seems to be saying the same thing as Snow. Agriculture needs to be for something and not always against anything proposed by others. Mike's specific statement (page 3) was "The point is, I think it is time for ag to be for something, as opposed to being against whatever is being proposed."

The next document to reach my desk was Terry Erlewine's memorandum (copy attached) reporting the results of the August 28 Water Use Efficiency Work Group meeting. The key paragraph in Terry's memorandum is:

"My impression of the discussion was that everyone was talking past each other on the draft agricultural water use efficiency strategy. Environmental reps seemed to want more from the program and did not believe the tools were sufficient. Agriculture reps mildly questioned the need for many of the identified tools and more strongly questioned the need for additional intrusive controls."

Finally, I received a copy of Lloyd Fryer's memorandum to KCWA's member agencies (copy attached) describing the August 28 Work Group meeting. Lloyd attached a copy of the draft CALFED "Agricultural Water Use Efficiency Strategy" paper and Bill DuBois comments on that paper. Both Lloyd's and Bill's memorandums were well done and while reading the "Agricultural Water Use Efficiency Strategy" it became clear to me that the problems Lester Snow and others attribute to agriculture's representation is not due to that representation but due instead to the inappropriateness of the CALFED agriculture and urban water use efficiency position.

There are lots of issues in the so-called strategy paper that can be used to support the above conclusion. One of the most flagrant examples is that water transfers are considered an important component of a water use efficiency strategy. As Bill DuBois explains, the only time water transfers might play a role in a water conservation effort would be as a funding mechanism for construction of water conservation facilities. A more important question, which Lloyd raises, is what linkage is there between water use efficiency and the benefits (ecosystem restoration) derived from a CALFED Bay-Delta solution?

The draft CALFED "Agricultural Water Use Efficiency Strategy" paper like most of the products of CALFED is written by people with a superficial understanding of California's physical and institutional water system. The staff, environmentalists, and most of the public believe that water conservation is an integral part of California's water supply problem. Quoting from the strategy paper:

"During the CALFED scoping period and at numerous public meetings, the public as well as stakeholders said water efficiency improvements should play an integral role in the Bay-Delta solutions."

The following explains why I believe they are wrong.

Eastside San Joaquin Valley from Madera south to Arvin: This area derives its water supply through surface storage and groundwater pumping. The water supply system developed to meet this area's water supply needs is not connected operationally to the Bay-Delta system. Water conservation in this area will result in a more reliable supply for the area and less pumping from the groundwater. Water conservation in this area will not increase Delta inflow or affect the amount of water pumped from the Delta.

Sacramento Valley: Water conservation measures in the majority of the Sacramento Valley will result in a reduction in return flows (surface and/or subsurface) to the rivers and no net gain in water supplies available to the system. In the few areas where water conservation could result in a net reduction in water use that reduction will primarily benefit the Central Valley Project (CVP) and State Water Project (SWP) and not the Bay-Delta. A reduction in use upstream of the Delta through water conservation would result in small increases in Delta outflow when the system is in an uncontrolled condition. In other words, when there are surplus flows in the Delta



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(winter and early spring months in most years) a reduction in upstream use will increase the magnitude of the surplus flow. This increase will have no measurable benefit to the ecosystem if you assume the Delta outflow requirements selected by CALFED provide sufficient water to protect the ecosystem. If not, the solution is to establish more appropriate Delta outflow requirements not to mandate water conservation measures.

The majority of any reduction upstream of the Delta due to water conservation will occur during controlled conditions. This reduction will result in less releases from the CVP and SWP for maintenance of Delta outflow requirements and an increase in project water supplies. So the primary affect of water conservation north of the Delta that results in a reduction in water use would be an increase in SWP and CVP supplies and increased project pumping from the Delta.

Water conservation measures north of the Delta would reduce diversions and, therefore, the direct impact of those diversions on fish (primarily salmon). This problem is also being addressed through the construction of fish screens. Water conservation will not reduce the need for effective screens. Diversion reductions would also improve in stream flow conditions is some streams and rivers in northern California. Water conservation in Northern California should be pursued in situations where in stream habitat could be improved through reductions in diversions and not on a across the board mandated program and not as part of a Bay-Delta solution designed to increase water supply reliability and improve Bay-Delta ecosystem health.

Westside San Joaquin Valley from Tracy to Kettleman City: This areas water supply needs are met through the Delta Mendota Canal, the CVP's San Luis Unit, and groundwater pumping. The physical capacity of the delivery systems is not sufficient to meet the water supply needs of the area. The water service contractors in this area will receive a 100% supply only in wet years. Water conservation is and will continue to be used in this area to meet a chronic water shortage situation. Water conservation in this area will not reduce the amount of water pumped from the Delta.

Southern San Joaquin Valley: This area is primarily agricultural with the water supply provided by Sierra reservoirs on each significant river in the area, Friant Dam deliveries through the Friant-Kern Canal, groundwater, and SWP deliveries. The area generally has three types of water supply situations.

For example, Kern County has a groundwater overdraft, a significantly variable water supplies from Friant, and an unreliable SWP water supply. Water conservation is used to cope with SWP water shortages or reduce the groundwater pumping in years when the area has an adequate SWP water supply and little water available from Friant. Water conservation measures will not reduce the amount of water pumped from the Delta because all water available to Kern County will be used to reduce the groundwater overdraft and to increase groundwater storage for use during water short years.

The Tulare Lake area uses surface water developed by storage facilities on Sierra river, SWP water, and groundwater. Water conservation is used to reduce drainage quantities and groundwater pumping. Water conservation measures will not decrease Delta pumping because any additional water made available by a Bay-Delta solution will be used to decrease the need to use groundwater.

A third example in this area is water districts with only one water supply option and that is the SWP. The SWP water supply as been inadequate to meet the districts needs many of the past few years. Water conservation and numerous complex water transfers have been used to meet these districts water supply needs. Any additional water made available by a Bay-Delta solution will be used to reduce the need for expensive water transfers and will not reduce the amount of water pumped from the Delta.

Southern California and South San Francisco Bay: These areas are primarily urban water users. Water conservation has become an economical viable water supply option for these areas. Conserved water in these coastal areas is "real" water in the since that unused drainage flows to an usable water supply source where its lost to further use, usually the ocean. Therefore, water conservation is being pursued aggressively in Southern California and the San Francisco Bay area.
Conserved water in these areas will reduce the need for water from the Delta through either the CVP or SWP. Water conserved in these areas reduces the need for CVP or SWP. That reduction will reduce Delta pumping when the agriculture water users are receiving a 100% water supply. Water conserved in years when agriculture is not getting a 100% supply will automatically be allocated to agriculture and will not effect the quantities of water pumped from the Delta. The CVP agriculture water users receive a 100% in very wet years only. Years when everyone and the environment has more than sufficient water supplies available. SWP agriculture water users are assured a 100% supply in normal or wetter years. So coastal areas conservation efforts will result in reduced SWP Delta pumping in normal or wetter years.

The CALFED Bay-Delta solution is to reduce the conflict between the water needs of the ecosystem and the agriculture/urban water users. That conflict occurs in dryer years. Therefore, urban water conservation in Southern California and the south San Francisco Bay area will not reduce the need for water pumped from the Delta during water years when the conflict between water user needs and ecosystem habitat needs occurs.

In summary, neither urban or agriculture water use efficiency will affect in any way the analysis of alternative Bay-Delta solutions or the selection of a preferred Bay-Delta solution. Water use efficiency will continue to be important to both agriculture and urban water users dependent on Bay-Delta water supplies as a means of coping with water shortages and as an alternative water supply in the urban coastal areas.

I'm sorry for the long diatribe. I find it frustrating that agriculture is once again being described as non-responsive on water conservation issues when reality is that agriculture is the only group

dealing reality of what water conservation can and cannot accomplish. I find having Lester Snow and others suggest agriculture needs new representatives in the BDAC Water use Efficiency Work Group troubling when I find the problem is his staff's product. That product is based on a technically inaccurate public perception that water conservation is an important component of the Bay-Delta solution. Lester's problem is a PR problem and not a problem with agriculture and its representatives. He needs to explain to the environmentalists and the public why water conservation is not relevant to his task. Urban representatives need to stop feeding the inaccurate water conservation perception by agreeing to discuss mandatory water conservation when they know, or should know, that its not an important component needed to develop an agreement on a preferred Bay-Delta solution.

Obviously, I do not believe we need new representation in the BDAC Water use Efficiency Work Group. We do need to develop a policy strategy for our participation in this group. Are we going to ignore their work because of its poor quality? Are we going to work to help this group understand, technically, why water conservation does not affect the analysis of Bay-Delta alternative solutions? Are we going to develop our own agricultural water use efficiency CALFED component? Our representatives do need guidance on how to approach the situation they find themselves in. I would be willing to participate in this process if you wish.

cc: Tom Hurlbutt
Dan Nelson
Lloyd Fryer